

Amendments to the Drawings:

Please replace all the drawings, including Figs. 1A, 1B, 2, 3, 4A, 4B, 4C, 5A, 5B, 5C, and 6, with the accompanying replacement drawings.

Remarks

Reconsideration of the present application, as amended, is respectfully requested.

The drawings were objected to. In response, replacement drawings are submitted herewith for all figures, i.e., Figs. 1A, 1B, 2, 3, 4A, 4B, 4C, 5A, 5B, 5C, and 6.

On page 13 of the specification, a correction was made to the first sentence beginning the only paragraph of that page for a better reading of the sentence.

Of previously pending claims 1-22, independent claims 1 and 10 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application No. 2005/0030623, filed June 28, 2004 by S.G. Koh, with a provisional patent application filed June 27, 2003. Claim 2-9 were objected to but were considered allowable if rewritten in independent form to include all the limitation of the base claim and any intervening claims. Remaining claims 15-22 were allowed.

The applicants address their arguments with respect to rejected independent claims 1 and 10. Simply stated, the teachings of the Koh patent application do not read upon the rejected claims. In his description of the cited prior art reference, the Examiner notes, "Referring to FIG. 1, for illustrative purposes a VOA and isolator configuration is constructed by combining a polarization insensitive optical isolator and VOA. The polarization insensitive optical isolator is composed of...(applicants' underlining)." The Examiner takes his description from paragraph 0026 of the cited reference.

However, independent claim 1 recites:

1. An integrated variable optical attenuator comprising:
a polarization element for continuously varying the state of polarization of polarized light incoming to said integrated variable optical attenuator responsive to a control signal; and
a polarization-sensitive optical isolator fixed with respect to said polarization element so that the amount of light polarized light passing through said polarization element and said polarization-sensitive optical isolator can be varied by said control signal (underlining added).

Likewise, independent claim 10 recites:

10. (original) An integrated variable optical attenuator comprising:
a liquid crystal cell having first and second plates, each having an electrode mounted thereon, said liquid crystal cell rotating polarized light responsive to the amount of voltage applied between said electrodes; and
a polarization-sensitive optical isolator core fixed to said liquid crystal cell, said optical isolator core having a first polarizer, a Faraday rotator, and a second polarizer arranged with respect to each other so that the amount of polarized light from said liquid crystal cell passing through said first polarizer is controlled by said amount of voltage applied between said liquid crystal cell electrodes, and light passing through said second polarizer and said Faraday rotator to said first polarizer is blocked (underlining added).

Hence the applicants' claims are not anticipated by the cited Koh reference as stated by the Examiner. While Koh apparatus and the applicants' device have similar elements, the clear statement of polarization sensitivity in the applicants' optical isolators show that the applicants' invention is entirely different from the Koh apparatus.

Therefore, in view of the amendments above and the remarks directed thereto, the applicants request that all rejections be withdrawn, that all claims 1-22 be allowed and the case be passed to issue. If a telephone conference would expedite prosecution of this application in any way, the Examiner is asked to telephone the undersigned at (408) 868-4088.

Respectfully submitted,

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